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## **Rio Puerco Mine**

**1. Location/Land Status:** The Rio Puerco Mine is located on BLM land within Section 18, T12N, R3W on USGS La Gotera quadrangle (35.271444N, 107.198028W). Physical access to the mine is gained by taking Canoncito School Road north from US I-40 approximately eight miles, bear right at the school, continue north on Canoncito School Road seventeen miles bearing westward throughout, turn right (north) onto Laguna Indian Service Road, travel two miles NE past a stock tank and on to the mesa to reach the site.

**2. Human Activity:** Fresh tire tracks indicate recent human access to the site.

**3. Radiological Survey:** Radiological survey results were as follows: ground surface maximum of 600  $\mu\text{R}/\text{hour}$  and minimum of 14  $\mu\text{R}/\text{hour}$ . Four-foot elevation maximum was 420  $\mu\text{R}/\text{hour}$  and minimum was 12  $\mu\text{R}/\text{hour}$ . Background radiation level is approximately 14  $\mu\text{R}/\text{hour}$ .

**4. Mine Disturbance:** The Rio Puerco Mine is without question the most extensive site surveyed during the course of this investigation, covering an area of approximately 12 acres. The mine consists of a vertical shaft of unknown depth, adjoined by a 15,000 square foot steel structure containing lifts for the head frame (the head frame is no longer present), offices, showers, service bays, and equipment storage areas. Immediately east of the large building there is a second building, approximately 2,400 square feet, containing a 100+kW generator. North of the generator building there is an area which formerly contained electrical infrastructure; this impound contains three electric transformers. Oil from the transformers has leaked or been dumped onto the concrete pad and surrounding soils (possible PCB contamination). To the west of the main building there is a 1,200 square-foot Quonset hut equipment service building, a 25,000-gallon water tank, and three small utility sheds. Fire hydrants are present onsite, indicating the presence of a water distribution system likely fed by a nearby well (see Hydrogeology section below). Approximately 100 ft. east of the main building there are three petroleum storage tanks of various volumes: one 9,000 gallon and two 6,000 gallon. To the south southeast of the main building is a very large, enclosed, propane tank of unknown volume. 1,000 feet SSW of the main building there are three ponds (total dimensions 280 x 380 feet, approximately 750,000 gallon capacity) and a small (600 square-foot) chemical mixing shed. The site is open to foot and vehicle traffic as there is no longer a complete fence around the property.

**5. Plant Community:** The surrounding area is moderately grazed grassland with sparse clusters of pinon-juniper forest and ponderosa pine. Site vegetation is composed of 40% grass, 10% forbs, 5% shrubs, 5% trees, and 40% bare ground.

**6. Soils:** Soils at the site are Zia-Skyvillage Rock outcrop complex, with 5 to 40 percent slopes, 0 to 60 inches sandy loam.

**7. Wildlife:** When approaching the mine, a small herd of elk numbering approximately one dozen animals was observed. The ridge upon which the mine is located is covered with

various other animal sign including fox scat and tracks, coyote scat and tracks, rabbit tracks and remains, and several bird remains (raptor kills).

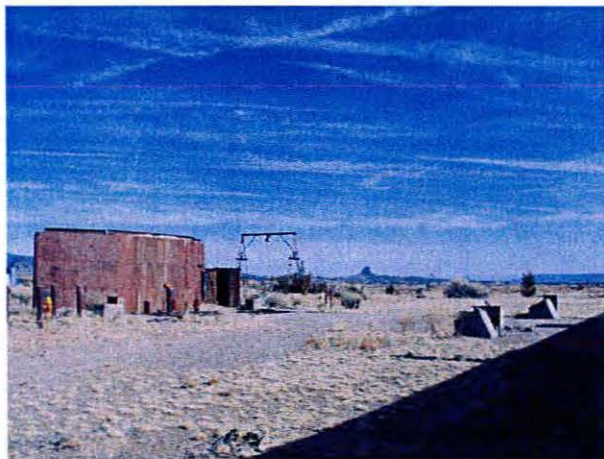
**8. Land Use:** Land use is light to moderate grazing.

**9. Off-Site Impacts:** No off-site impacts were noted.

**10. Topographic Features:** The site is flat-lying, with no notable erosional features.

**11. Hydrogeology:** Based on a review of the NMOSE iWaters database, there are two well records within a one mile search radius. One of these wells, located approximately one-half of a mile to the west of the site, does not have a recorded depth to water. The other well, located on the western margin of the site, has a recorded depth to water of 200 ft.

The nearest surface water drainage feature is approximately one-tenth of a mile to the northwest of the site.



Headframe area



Site view



Storage containers



Pump station

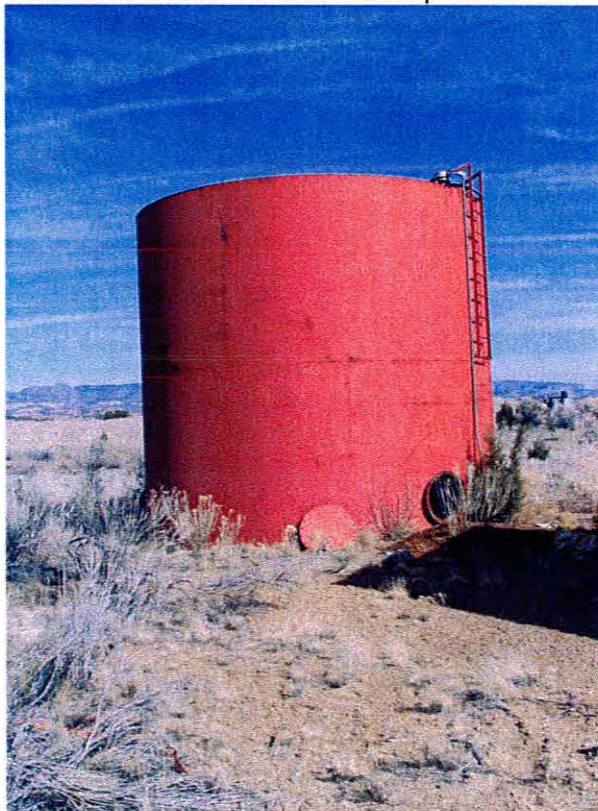




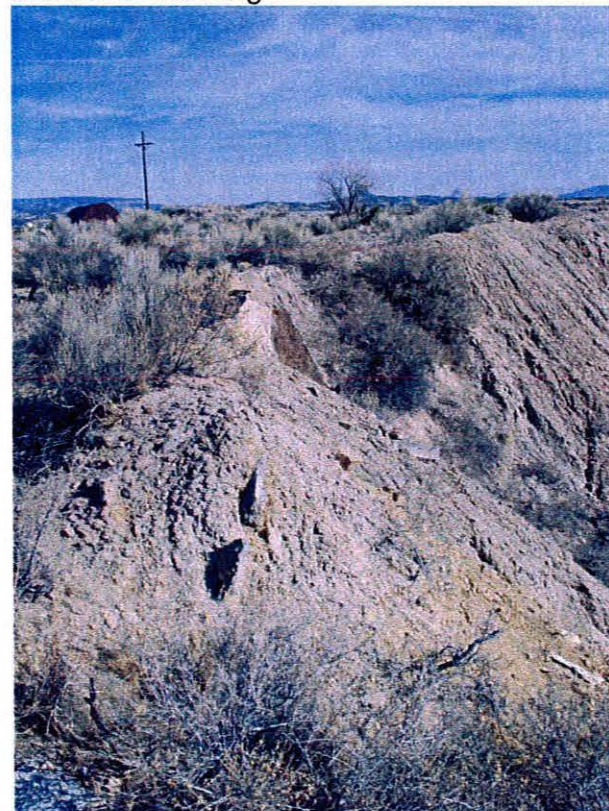
View south into eastern-most pond



Interior of building

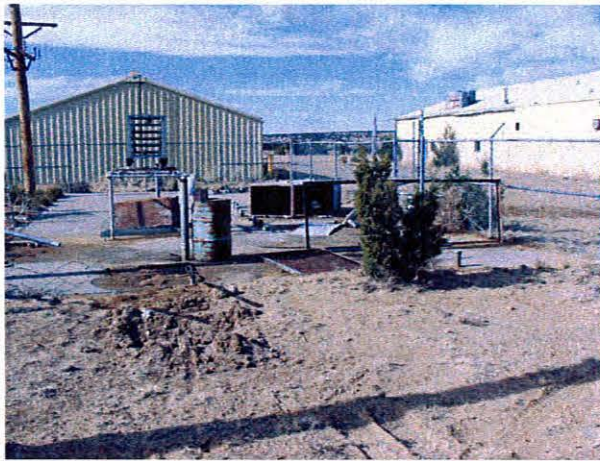


Water tank



Rock piles



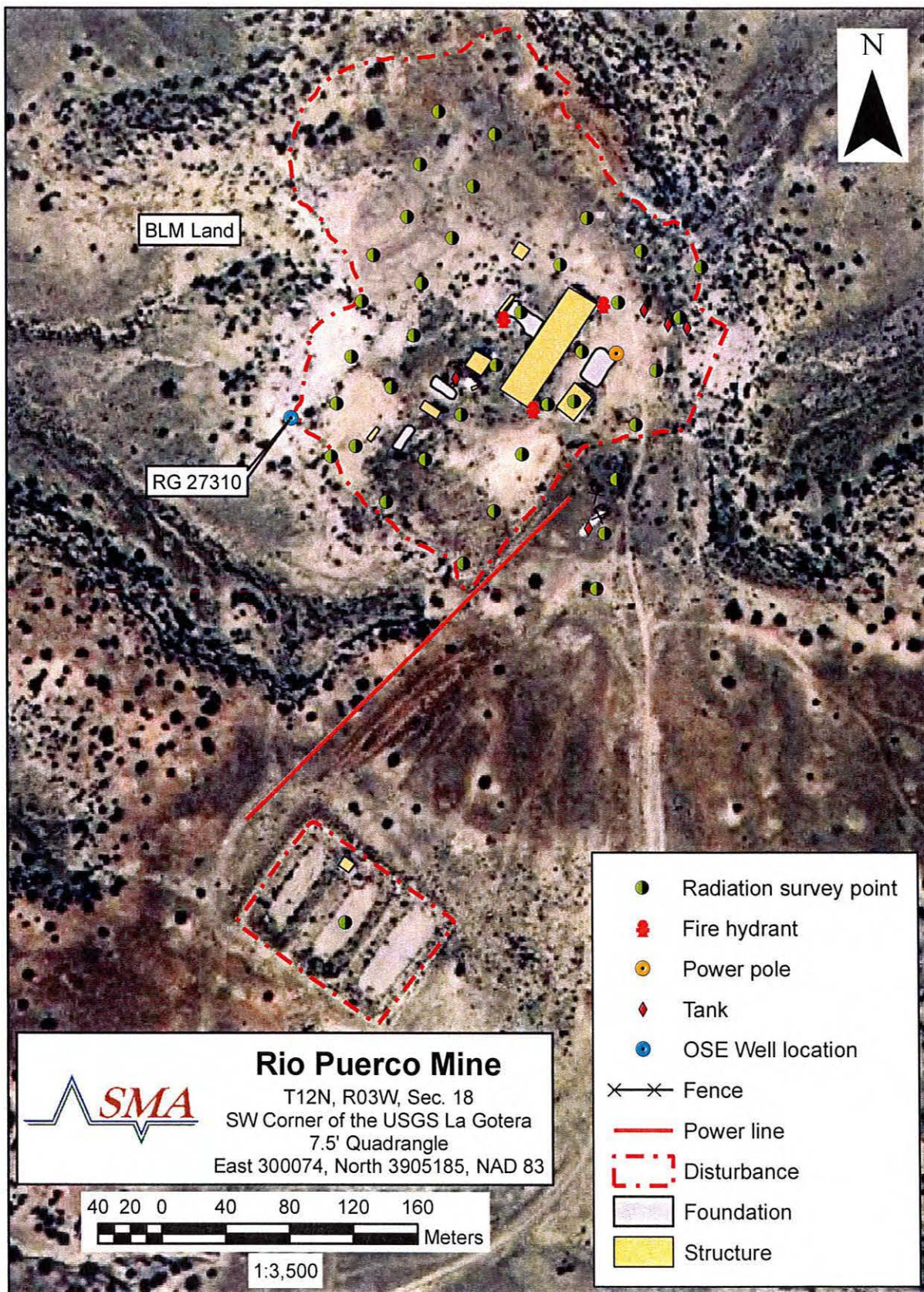


Electrical yard with transformer oil spill



Transformer oil spill, recent tire tracks





## AUM Field Survey Data Sheet

Site Rio Puerco


Date <i>03/20/08</i>	Time On-Site <i>0815 hrs.</i>	Time Off-Site <i>1100 hrs</i>	By <i>B. MERTZ</i> <i>B. BALDWIN</i>	
Weather Conditions: <i>Sunny, wind calm-Breezy, temp. mod-cool.</i>				
Disturbances	GPS#	Description	Dim/Area/Volume	Photo #'s
Shafts				
Adits				
Pits				
Waste Rock Dumps				
Tailings				
Trenches				
Roads				
Erosional Features				
Structures / Equipment	GPS#	Description	Dimensions	Photo #
Buildings		<i>houses</i>		
Headframes		<i>1</i>		

*3 ponds*



## AUM Field Survey Data Sheet

Site \_\_\_\_\_

Equipment				
Soils	GPS#	Description	Extent	Photo #
Vegetation	GPS#	Description	Extent	Photo #
 SEE ATTACHED				
Wildlife	GPS#	Description		Photo #
Rabbits, rodents. ELK offsite		Observed JACK rabbits (2x) feces evident. Rodent feces inside buildings. Observed appx 10 head of elk on way to site - mostly cow, one with calf. About 3 miles to SW of site.		
Human Activity (non-mining, w/in 0.5 mi of site)	GPS#	Description	Extent	Photo #
NO Housing nearby Propane tank.		very large tank on site		
Land Use (grazing, agricultural, roads, etc., w/in 0.5 mi of site)	GPS#	Description	Extent	Photo #
Grazing OHV		Grazing light on site - Heavier offsite esp. to North. Noticed Pickup! ATV tracks on site.		
Nearby Residences / Wells (w/in 0.5 mi of site)	GPS#	Description	Distance to Site	Photo #
Windmill & Tank		To north appx 1/2 mile Corrals & Tanks to SW appx 1 mile		
Topographic Features (roads, water courses, etc.)	GPS#	Description		Photo #

## AUM Field Survey Data Sheet

Site AUM-Rio Puerco 2008-3-20

Radiological Survey			
GPS#	Description	Reading Surface	Reading 4 feet
DISTRB Ø	Area around buildings and waste piles ✓	—	—
Found Ø	Power distribution yard. Several transformers w/ spilled oil; ✓	—	—
"	possible PCB contaminated soils. ✓	—	—
STRUC Ø	House air and power generation 4 cyl CAT compressor & 16 cyl. ✓	—	—
"	generator (locomotive scale) ✓	17	17
Gen Ø ARC	Fire hydrant	—	—
STRUC-1	main building; consists of offices, shores headframe lifts, etc. ✓✓✓		
STRUC-3	Quonset-hut ✓		
STRUC-4	headframe ✓		
ARC-1	Fire hydrant		
STRUC-5	Pump house ✓		
TANKO	16 x 16' ✓		
STRUC-6	Unknown 1/4" plate steel structure ventilated w/ two locked doors. ✓		
FOUND-2	unknown		
STRUC-7	Multi-celled tank and pump structure. ✓		



## AUM Field Survey Data Sheet

Site ANM - Rio Buco 2008-3-20

Radiological Survey			
GPS#	Description	Reading Surface	Reading 4 feet
G0	Rad. survey start SW corner	16	19
G1	Rad. survey cont'd.	24	24
G2	"	100	100
G3	"	600	360
G4	"	600	360
G5	"	600	420
G6	"	150	140
G7	"	80	100
G8	" ✓	130	120
G9	"	120	120
G10	"	440	360
G11	"	200	180
G12	"	120	80
G13	"	22	18
G14	" ✓	20	20

## AUM Field Survey Data Sheet

Site AUM - Rio Puerco 2008-3-20

Radiological Survey			
GPS#	Description	Reading Surface	Reading 4 feet
G15	Rad. survey cont'd ✓	14	14
G16	"	17	15
G17	"	26	23
G18	"	32	30
G19	"	32	26
G20	"	42	40
G21	" ✓	90	80
G22	" ✓	46	42
G23	"	21	16
G24	"	25	20
G25	"	19	19
G26	"	16	15
G27	"	16	15
G28	" ✓	14	13



## AUM Field Survey Data Sheet

Site AUM - Rio Puerco 2008-3-20

## Radiological Survey

GPS#	Description	Reading Surface	Reading 4 feet
G29	rad. survey cont'd ✓	32	30
G30	"	40	36
G31	"	25	21
G32	"	19	16
G33	"	17	15
G34	"	14	12
G36	" ✓	17	15
<del>G37</del>	<del>"</del>		
<del>Acc.</del>			
TANK <del>φ</del>	propane tank ✓		
Acc <del>φ</del>	power line between genst. & ponds		
DISTURB 1	ponds (3) ✓	130	130
STRE 8	shed adjacent ponds ✓		
Pt <del>φ</del>	trash ✓		